vehicles and equipment, access to the western general aviation areas, access for security patrols by local police forces, and access to public picnic sites without the hazard of entering and exiting U.S. Highway 1.

- Construct a one-lane service roadway eastward from the passenger terminal access road to the Mosquito Control Access drive.
- Construct a two-lane roadway from the volunteer fire station drive westward to the general aviation access gates.
- Construct a one-lane service roadway westward from the general aviation gates to Airport Boulevard. Install landscaping typical of lower keys vegetation in the areas between U.S. Highway 1 and the service roadway west of the passenger terminal building. Install landscaping typical of the upper keys vegetation in areas between U.S. Highway 1 and the service roadway east of the passenger terminal building.

4.7.8 SUMMARY OF IDENTIFIED LANDSIDE FACILITY REQUIREMENTS

The need for the various forms of landside facility development has been identified. Actualized demand and availability of financial resources and incentives will most likely drive the timing, location and extent of such development.

The airport as currently configured, equipped and operated, meets or exceeds the facility requirements needed to satisfy the current level of aviation activity demand. As with most projects, proper planning serves to identify opportunities for continued airport development to meet the existing or anticipated operational demand. Throughout the history of the airport, Monroe County has planned and completed various airport improvement projects to satisfy the needs of the commercial and general aviation flying public.

Because the existing passenger terminal complex is relatively new and currently utilized, the opportunity for ongoing airport landside improvement will most likely be limited to the development of facilities supporting general aviation activity. Such activities would serve to further expand the revenue-generating capabilities of the airport while enhancing the level of aviation services offered to the Middle Keys and the flying public. Further discussion of planning predicated on the goal of maintaining or enhancing aviation facilities and services at MTH is further discuss in the following sections of this Master Plan Update report.

SECTION 5 0
AIRPORT DEVELOPMENT PLAN

SECTION 5.0

AIRPORT DEVELOPMENT PLAN

5.1 INTRODUCTION

This section presents the 20-year airport development plan for MTH. The plan is described in a series of development planning topics for clarity and understanding. Emphasis is placed on capital improvements through the year 2020 in keeping with the Federal Aviation Administration's (FAA) definition of a 20-year Master Plan.

It is implicit in the planning for MTH, that the existing site be developed to its full potential to serve segments of commercial service and general aviation in accordance with the recommendations contained in Section 4, Demand/Capacity Analysis and Identification of Facility Needs. A staging program of improvements has been planned which will ensure an adequate balance between aviation needs, community goals, funding and financial feasibility. Detailed staging and cost estimates are described in Section 7.0, Implementation Program.

This section describes the basic planning elements of the recommended 20-year development program of the airport through the year 2020. The following four major subjects are discussed in this section:

- Long-Range Plan;
- Land Requirements;
- Airport Land Use Plan, and;
- Building Area Planning.

Each of the four topics is discussed individually in the following analysis.

5.2 LONG-RANGE PLAN

The recommended Long-Range Airport Development Plan as shown on **Figures 5.1 through 5.3** depict the airport as it might look toward the end of the forecast period. The airport has been developed to include the necessary elements as identified in Section 4. As presented, this airport development plan is not intended to represent a finite scenario, but as a demonstration of how the airport might appear toward the end of the forecast period. The principal features of the plan are as follows:

- Extension of Runway 7/25 and Taxiway "A" to length of 6,000 Feet;
- New Monroe County Sheriff Hangar, Apron and Fuel Farm Complex;
- New Aviation Maintenance Specialty Hangar and Apron;
- New East FBO Hangar;

- Continued T-Hangar Development (Phase II);
- New Aircraft Wash Rack;
- New Aircraft Rescue and Fire Fighting/Emergency Operations Center;
- New Airport Maintenance Facility;
- New Airport Traffic Control Tower;
- Expanded Multi-Modal Air Cargo Facility;
- New Corporate Hangar Facilities, and;
- Additional On-Airport Aviation-Related Land Uses.

5.3 AIRSIDE IMPROVEMENTS

As shown on **Figures 5.1 though 5.3,** the ultimate airfield layout and geometry includes a 992-foot extension of Runway 7/25 and parallel Taxiway "A" to a length of 6,000 feet. The airfield improvements are described in the following paragraphs.

5.3.1 RUNWAY 7/25

Runway 7/25 will remain the only runway, with anticipated non-precision approach capabilities to both runway ends. The airport reference code for Runway 7/25 is and will remain B-II.

5.3.1.1 Runway 7/25 Pavement and Safety Area

The airfield improvements to Runway 7/25 and Taxiway "A" include the extension of the runway 492 feet to the east and 500 feet to the west. The Runway Safety Area would extend 300 feet beyond each end of the runway and have a width of 150 feet. This runway configuration would provide 6,000 feet of full-strength usable runway pavement with a fully compliant Runway Safety Area surrounding the runway.

Because landing threshold would be relocated to each extended runway end, no additional modification of design standards or the application of Declared Distance Criteria would be required.

5.3.1.2 Runway 7/25 Pavement Strength

The future pavement strength for extended Runway 7/25 would remain unchanged and is listed in **Table 5.1**.

Florida Keys Marathon Airport
Monroe County, Florida
Master Plan Update

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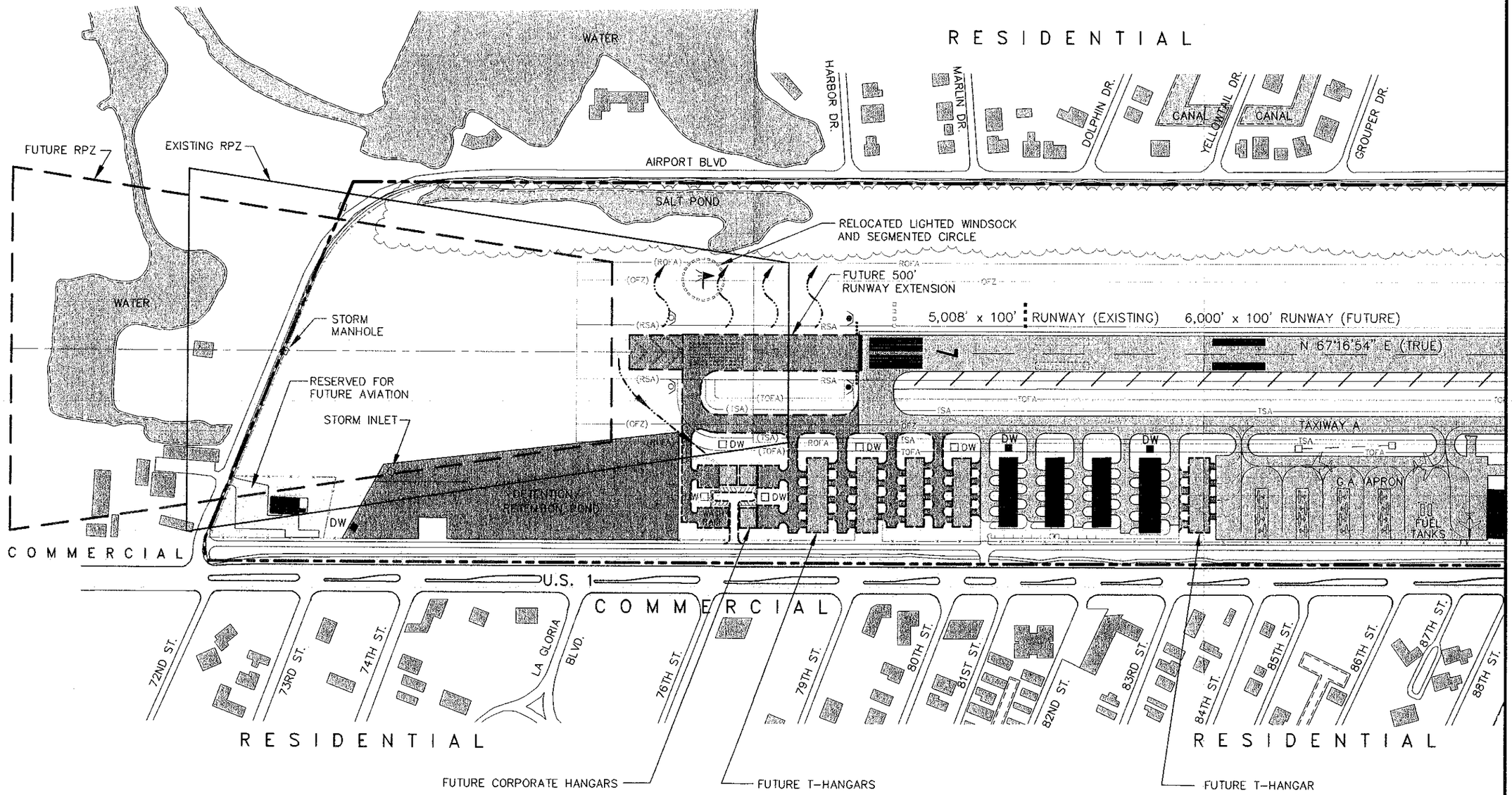

LEGEND

- EXISTING ON-AIRPORT BUILDINGS
- EXISTING OFF-AIRPORT BUILDINGS
- EXISTING AIRFIELD PAVEMENT
- FUTURE AIRFIELD PAVEMENT
- FUTURE BUILDINGS
- RESERVED FOR FUTURE AVIATION
- EXISTING DETENTION/RETENTION POND
- EXISTING WATER
- DRAINAGE FLOW
- DW□ FUTURE DRAINAGE WELL
- AIRPORT PROPERTY LINE

N

300 0 300

GRAPHIC SCALE IN FEET

J:\MARATHON\ALP UPDATE\EXHIBITS\FIG 5.1.DWG 12/06/02 13:04

BUILDING AREA PLAN 1

FIGURE 5.1

RESIDENTIAL

CANAL

YELLOWTAIL DR.

CANAL

GROUPER DR.

MANGO LN.

CANAL

AIRPORT BLVD

ROFA

OFZ

FUTURE 492'
RUNWAY EXTENSION

RSA

N 67°16'54" E (TRUE)

5,008' x 100' RUNWAY (EXISTING)
6,000' x 100' RUNWAY (FUTURE)

25

TOFA

TSA

TAXIWAY A

FEDEX GROUND SORT FACILITY

CARGO APRON

CARGO FACILITY

COMMERCIAL APRON

FUTURE ATCT
WITH SECURITY BUFFER

PUBLIC PARKING

ASOS

DW

G.A. APRON

FUEL TANKS

FUEL FARM

U.S. 1

COMMERCIAL

TRUCK ACCESS

EXIT

84TH ST.

85TH ST.

86TH ST.

87TH ST.

88TH ST.

89TH ST.

90TH ST.

91ST ST.

92ND ST.

93RD ST.

94TH ST.

95TH ST.

96TH ST.

97TH ST.

98TH ST.

98TH CT.

99TH ST.

RESIDENTIAL

RESIDENTIAL

FUTURE T-HANGAR

CARGO/AIRPORT
MAINTENANCE EXPANSION

READY RENTAL
CAR PARKING

RAC MAKEUP AREA
INPROVEMENTS

LEGEND

- EXISTING ON-AIRPORT BUILDINGS
- EXISTING OFF-AIRPORT BUILDINGS
- EXISTING AIRFIELD PAVEMENT
- FUTURE AIRFIELD PAVEMENT
- FUTURE BUILDINGS
- RESERVED FOR FUTURE AVIATION
- EXISTING DETENTION/RETENTION POND
- EXISTING WATER
- DRAINAGE FLOW
- DW□ FUTURE DRAINAGE WELL
- AIRPORT PROPERTY LINE

N

300 0 300

GRAPHIC SCALE IN FEET

J:\MARATHON\ALP UPDATE\EXHIBITS\FIG 5.2.DWG 12/06/02 14:15

Florida Keys
Marathon Airport
Monroe County, Florida
Master Plan Update

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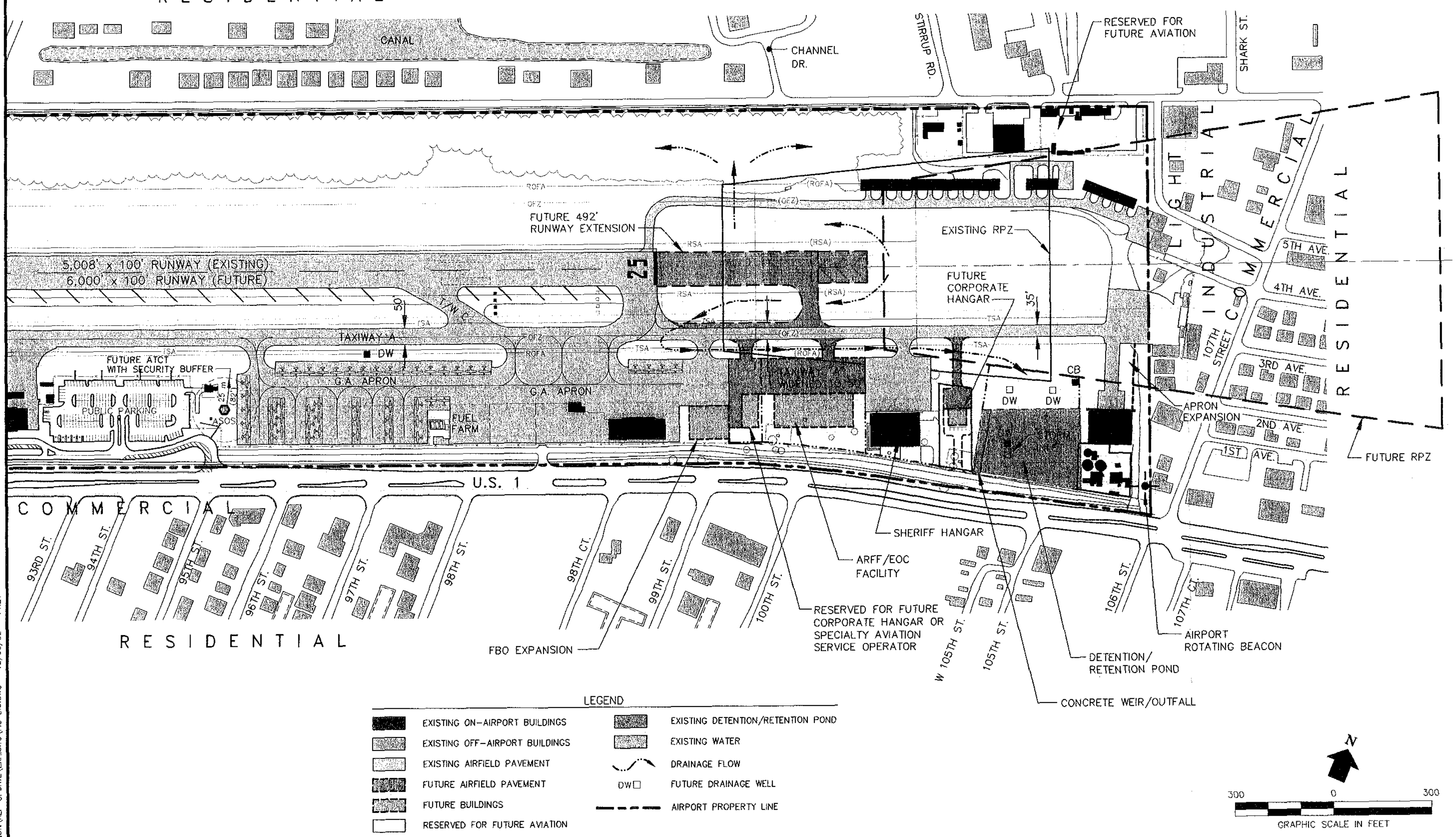
BUILDING AREA PLAN 2

FIGURE
5.2


RESIDENTIAL
CANAL
CHANNEL DR.
STIRRUP RD.
RESERVED FOR FUTURE AVIATION
SHARK ST.
ROFA
OFZ
FUTURE 492' RUNWAY EXTENSION
RSA
(RSA)
(ROFA)
(OFZ)
EXISTING RPZ
FUTURE CORPORATE HANGAR
35'
25
5,008' x 100' RUNWAY (EXISTING)
6,000' x 100' RUNWAY (FUTURE)
50'
T/W C
TSA
TAXIWAY A
DW
FUTURE ATCT WITH SECURITY BUFFER
G.A. APRON
PUBLIC PARKING
25 m
(82')
ASOS
FUEL FARM
CB
LIGHT INDUSTRIAL
INDUSTRIAL COMMERCIAL
COMMERCIAL
5TH AVE.
4TH AVE.
3RD AVE.
2ND AVE.
1ST AVE.
107TH STREET
APRON EXPANSION
FUTURE RPZ
U.S. 1
COMMERCIAL
93RD ST.
94TH ST.
95TH ST.
96TH ST.
97TH ST.
98TH ST.
98TH CT.
99TH ST.
100TH ST.
W 105TH ST.
105TH ST.
106TH ST.
107TH CT.
RESIDENTIAL
SHERIFF HANGAR
ARFF/EOC FACILITY
RESERVED FOR FUTURE CORPORATE HANGAR OR SPECIALTY AVIATION SERVICE OPERATOR
FBO EXPANSION
DETENTION/ RETENTION POND
CONCRETE WEIR/OUTFALL
AIRPORT ROTATING BEACON
LEGEND
EXISTING ON-AIRPORT BUILDINGS
EXISTING OFF-AIRPORT BUILDINGS
EXISTING AIRFIELD PAVEMENT
FUTURE AIRFIELD PAVEMENT
FUTURE BUILDINGS
RESERVED FOR FUTURE AVIATION
EXISTING DETENTION/RETENTION POND
EXISTING WATER
DRAINAGE FLOW
DW FUTURE DRAINAGE WELL
AIRPORT PROPERTY LINE
N
300
0
300
GRAPHIC SCALE IN FEET

Florida Keys
Marathon Airport
Monroe County, Florida
Master Plan Update

URS

BUILDING AREA PLAN 3

FIGURE 5.3

J:\MARATHON\ALP UPDATE\EXHIBITS\FIG 5.3.DWG 12/06/02 14:21

TABLE 5.1
RUNWAY PAVEMENT STRENGTH DATA
Florida Keys Marathon Airport
Master Plan Update

Landing Gear Configuration	Existing Strength*	Ultimate Strength*
S: Single Wheel	**75,000**	**75,000**
D: Dual Wheel	**129,000**	**129,000**
DT: Dual Tandem Wheel	**191,000**	**191,000**
DDT: Double Dual Tandem Wheel	-	-

*Aircraft weight in pounds.
Source: URS 2002

5.3.1.3 Runway 7/25 Electronic and Visual NAVAIDS

Electronic and visual navigational aid equipment serving Runway 7/25 is anticipated to ultimately include the following:

- Non-Directional Beacon (NDB) located 2.1 miles southwest of Runway 7 threshold;
- Four-light Precision Approach Indicators (PAPIs) serving Runway 7 and Runway 25, and;
- LAAS/WAAS Non-Precision GPS approach capabilities to both runway ends.

5.3.1.4 Runway End Data

Based on the extended runway configuration, preliminary engineering efforts establish future runway end elevations and runway end geodetic coordinates. The existing and future runway end elevation and geodetic coordinate data is listed in **Table 5.2.** This information will be used to establish runway end and Federal Aviation Regulations Part 77 Imaginary Airspace Surface elevations for the airport.

TABLE 5.2
RUNWAY END DATA
Florida Keys Marathon Airport
Master Plan Update

Runway	Runway End Elevation (MSL/NAVD 88)	Latitude (NAD 83)	Longitude (NAD 83)
7 (Existing)	4.6	24º43'24.68" N	081º03'29.98" W
7 (Future)	4.6	24º43'22.77" N	081º03'34.98" W
25 (Existing)	5.2	24º43'43.84" N	081º02'39.87" W
25 (Future)	5.2	24º43'45.72" N	081º02'34.96" W

Sources: FAA Flight Inspection Technical Branch, AVN-210 04/12/01 Existing and URS 2000 (Future).

5.3.2 TAXIWAY ALPHA

An essential element of any airport layout is an efficient aircraft ground circulation system, which connects the runways to the aviation facilities throughout the airport. To maximize the effectiveness and capacity of the runway system, taxiways are located parallel to the runways along with connector taxiways placed at exit and entry points along the runway. The FAA, airport users groups, and the consultant have recommended this basic design for MTH.

Based upon the forgoing, a 992-foot extension of Taxiway Alpha ("A") with associated runway end connector taxiways at each runway end would provide the most efficient airport layout. These extensions are reflected on **Figures 5.1 and 5.3**.

5.3.3 IMAGINARY AIRSPACE AND INSTRUMENT APPROACHES

When Runway 7/25 is extended, each landing threshold and associated FAR Part 77 Inner Approach Surface will shift outward accordingly. Starting 200 feet beyond the runway end, the Runway 7 Inner Approach Surface will shift 500 feet to the west. The Runway 25 Inner Approach Surface will shift and 492 feet to the east.

Runway 7 is currently served by a NDB or GPS non-precision instrument approach procedure having straight-in approach cloud ceiling height and horizontal visibility minimums of 460 feet and 1 mile respectively. Regardless of runway length, the shape and size of the Inner Approach Surface for Runway 7 would remain unchanged.

On-going development of space-based navigational facilities may provide future precision-instrument capabilities to many airports using the Local Area Augmentation System (LAAS) and Wide Area Augmentation System (WAAS). These systems are anticipated to offer both horizontal and vertical guidance capabilities similar to that offered by an Instrument Landing System (ILS) today. The future feasibility of using the LASS/WAAS at MTH to achieve precision-instrument approach capabilities is unknown at this time. However, in anticipation that future space-based systems may allow non-precision capabilities to both runway ends, the Runway 25 Inner Approach Surface would increase in size. Starting 200 feet from the approach end of Runway 25, the trapezoidal Inner Approach Surface would be 500 feet in width, extend outward along the extended runway centerline to a distance of 10,000 feet and have an outer width of 3,500 feet.

The future FAR Part 77 imaginary airspace surfaces for Runway 7/25 are depicted on sheets 2, 3 and 4 of the Airport Layout Plan set.

5.4 LAND REQUIREMENTS

To accommodate the ultimate development of the Runway 7/25 at MTH, no land acquisition is required by Monroe County. It is recommended however, that proper Avigation Easements and land use zoning be secured for land areas that are encompassed by portions of the Runway Protection Zones that extend beyond the eastern-most and western-most property boundaries.

5.5 AIRPORT LAND USE

An essential ingredient to the efficient operation of an airport is the organization of the various land use functions that occur on the airport into manageable units. These units should be organized in such a manner as to provide equal status to like uses, while at the same time separating units to allow for expansion as the airport continues to develop.

This plan provides adequate acreage for each of the land uses set forth in the facility needs program. In addition, it complements the existing and future public access, takes into account the location of existing facilities to remain, recognizes environmental characteristics of undeveloped acreage, and reflects decisions made by Monroe County and airport management during the course of the Airport Master Plan Update Study.

In this plan, on-airport land use functions occur adjacent to one another throughout the 20-year planning period and with sufficient acreage for development and/or expansion of existing and future airport tenants.

5.5.1 AIRPORT LAND USE CLASSIFICATIONS

Categories of airport land use for planning purposes are set forth as follows:

- Airfield Area;
- Passenger Terminal Area;
- General Aviation Areas;
- Airport Operations/Support (Maintenance, ARFF, Future ATCT);
- Undeveloped Environmentally-Sensitive Areas;
- Areas Reserved for Future Aviation Use, and;
- Airport Service Road.

The following paragraphs are devoted to defining each of these categories and describing the locations of these land uses on the airport property.

5.5.1.1 Airfield Area

This category includes land used for the runway/taxiway pavements, navigation aids, and their related critical clearance areas as defined by the FAA.

Figures 5.1 through 5.3 depict the future airfield area and the associated the Runway Protection Zones (RPZs) for each runway for the 20-year planning period. The RPZs are two-dimensional trapezoid-shaped areas located beyond each runway end. Within the RPZ, land use is restricted and should be controlled through airport ownership in Fee Simple terms or, when extending beyond the property boundary of the airport, through the use of Avigation Easements. The RPZs for each end of the existing 5,008-foot Runway 7/25 currently extend beyond the airport's east and west property boundary.

With planned runway extensions and anticipated improvements to the approach capabilities to Runway 25, the future RPZs will shift outward and, for Runway 25, increase size. As such, each RPZ will encompass larger areas of non-airport owned land. The current airfield shape or size is not anticipated to change with the planned improvements to the runway/taxiway system.

5.5.1.2 Passenger Terminal Area

This land area encompasses all the facilities needed to serve the airport user or commercial passenger, which include the passenger terminal structures, transient aircraft apron area adjacent to the terminal, public auto parking, employee parking, and the terminal access and loop roadway system.

The existing terminal building and supporting infrastructure were constructed in 1995 and are, without current scheduled air carrier or commuter service, highly underutilized. No changes are planned for the terminal area, associated infrastructure or support systems at this time. At such time that the resumption of scheduled air carrier, commuter, or air taxi services occurs, facility and area planning within the passenger terminal area will be addressed to best accommodate such operations.

5.5.1.3 General Aviation Areas

At MTH, all areas not supporting passenger terminal, air cargo or airport maintenance activities are reserved for general aviation uses. This includes both commercial and non-commercial activities. Commercial general aviation, by definition, consists of the FBOs and aircraft services. These activities include: the sale of aviation services for a profit to the general public, including maintenance, storing and servicing of aircraft; sale of aircraft; sale of aircraft parts and accessories; sale of aircraft fuel, lubricants and propellants, and operation of non-scheduled and charter transportation. Non-commercial general aviation, by definition, consists of those activities that involve the facilities for storage and service of aircraft for an individual, private organization, or corporation solely for its own benefit.

As shown on **Figures 5.1 through 5.3**, land areas currently supporting general aviation activities are located along U.S. Highway 1 and at certain locations beyond the approach end of Runway 25. Other areas currently used for non-aviation activities located at the west and east ends of the airport have been identified as being suitable for the development of future general aviation facilities.

5.5.1.4 Airport Operations Areas

The future operations and support areas for MTH consist of a new airport traffic control tower, new airport maintenance building, and relocated Airport Rescue and Fire Fighting facility. These facilities are depicted in **Figures 5.1 through 5.3**. The proposed location for the new airport traffic control tower (ATCT) was predicated on FAA airport traffic control tower site selection and line-of-sight criteria. The new ATCT would also require the complimentary development of support areas, employee parking and anticipated security set backs.

5.5.1.5 Undeveloped Environmentally Sensitive Areas

Areas classified as undeveloped and environmentally sensitive include most of the airport land areas along west of Runway 7/25 bordering Aviation Boulevard. These areas are shown on Figures 5.1 through 5.3 and are primarily comprised of environmentally sensitive salt ponds, mangroves, wetlands and upland exotic communities. Although these areas present limited opportunity for airport facility development, they can serve as a visual buffer between the airport and the nearby residential communities immediately west of the airport. These areas are not programmed for aviation use throughout the 20-year planning period.

5.5.1.6 Areas Reserved for Future Aviation Development

Three on-airport leased parcels currently operating as non-aviation uses (Monroe County Humane Society, Monroe County Department of Public Works and the DAV meeting hall) have been reserved for future use as aviation-related land areas. These areas are shown on **Figures 5.1 through 5.3**. The transition from these current uses to aviation-related uses will be based on a number of factors that may include, but not be limited to:

- Expiration of current leases;
- Voluntary or involuntary relocation with in-kind facilities;
- Demonstrated need for such land use conversion, and;
- "Highest and Best" use of on-airport lands that would serve to enhance, attract or accommodate aviation demand.

5.5.1.7 Airport Frontage Road

The existing airport frontage road serves primarily to provide limited access to underground and overhead utilities located along the airport's east side. The frontage

road does not currently extend the full length of the airport, thus requiring entry and exit of U.S. Highway 1.

Planned improvements include reconstruction of the road to run the entire length of the airport with certain associated landscaping improvements mandated by local development code. The landscaping improvements will serve as a visual buffer between U.S. Highway 1 and the airport. The planned improvements will establish free flowing vehicular movement from all proposed airport development activity centers and will allow utility and security vehicles to circulate the length of the non-secured areas along the east side of the airport without the hazard of entering and exiting U.S. Highway 1. . The frontage road improvements are depicted on **Figures 5.1 through 5.3**, The proposed landscaping plan is not shown.

5.5.2 SURROUNDING LAND USE

Existing land uses surrounding the airport include residential, light industrial, commercial and governmental. Residential land uses are located northwest, northeast, southeast and southwest of the airport. Light industrial land uses are located northeast of the airport. Commercial land uses are located northeast, southeast, and southwest of the airport. The proposed airport improvements will occur entirely on airport property and therefore not physically impact or adversely affect existing and planned land uses surrounding the airport.

5.6 BUILDING AREA PLAN

The proposed development of on-airport facilities at MTH through the year 2020 is shown on Figures 5.1 through 5.3. In addition to satisfying the facility requirements that were established in Chapter 4, the Building Area Plan reflects expandability in each facility in order for MTH to favorably respond to foreseen as well as unforeseen aviation demand. The following paragraphs discuss these facilities in detail.

5.6.1 CONTINUED T-HANGAR DEVELOPMENT (PHASE II)

To meet the projected demand for covered aircraft parking facilities throughout the 20-year planning period, the development of additional T-hangar structures is proposed to occur to the west and east of the Phase-I T-hangar development. The additional T-hangars would be of similar design and would be constructed as demand for coverd storage space or financial interest dictates. Similar to the Phase-I development, gated access and automobile parking would be available. A concept plan depicting these facilities is shown on **Figure 5.1**.

5.6.2 NEW AIRCRAFT WASH RACK

A concept plan depicting the development of an aircraft wash rack facility is shown on **Figure 5.1**. The location of the wash rack was predicated on providing the required oil/water separator traps and filters, surface water collection and treatment, access to Taxiway "A" and the airport service road. Other alternative on-airport locations for the development of a wash rack may be identified as on-going facility developments materialize.

5.6.3 NEW CORPORATE HANGAR FACILITIES

To address latent demand for the development of corporate-style hangar facilities at MTH, two on-airport land areas were identified as being suitable for the conceptual planning for such facilities. An undeveloped area located immediately east of the western–most FDOT detention/retention pond was identified as suitable for development of possibly three 50-foot by 55-foot conventional hangars, aprons and road access and automobile parking. An area immediately west of the eastern–most FDOT detention/retention pond was also identified as suitable for development of a single corporate facility of similar size with an apron and road access and automobile parking. The required surface water collection and treatment to support these developments will further dictate the design, layout and extent of impervious surfaces. A concept plan depicting these facilities is shown on **Figures 5.1 and 5.3**.

5.6.4 SUPPORT FACILITIES PLAN

As part of the functional land use organization of the airport, areas have been established in the plan for airport operational activities that includes the potential development of an Airport Traffic Control Tower, new airport maintenance facilities, and a future Airport Rescue and Fire Fighting/Emergency Operations Center. A concept plan depicting these facilities is shown on **Figure 5.2**.

5.6.4.1 New Airport Traffic Control Tower

FAA guidance on the location of an Airport Traffic Control Tower (ATCT) is provided by FAA Order 6480.4, *Airport Traffic Control Siting Criteria.* This FAA Order establishes mandatory and nonmandatory requirements concerning the site and height selection of an ATCT. It is applicable to all projects for the establishment or relocation of FAA-funded ATCT facilities. Referencing Order 6480.4, the line-of-sight visibility requirements dictate that an ATCT located on the east side of the airport at a midfield location would require that ATCT personnel have a minimum observer height of 43-foot above ground elevation.

This would most like result in the ATCT facility having an overall structural height of 50 feet or more. At such a height, the ATCT would penetrate the 7:1 Transitional Surface

for Runway 7/25. The determination and approval of the ATCT facility site selection and the associated impact to navigable airspace rests solely with the FAA.

The timing and funding for the development of a new Airport Traffic Control Tower at MTH will be solely dependent on the demonstrated need for such a facility. Funding for such facilities is available primarily through the FAA, but may be also funded through participation by the Florida Department of Transportation's Aviation Office and local funding sources. The criteria for Federal funding participation for the development of an Airport Traffic Control Tower is referenced in Federal Aviation Regulations Part 170, *Establishment and Discontinuance Criteria for Airport Traffic Control Tower Facilities* and FAA Order 7031.2C, Change 6, *Airway Planning Standard No. 1.* The proposed location of the ATCT is shown on **Figure 5.2.**

5.6.4.2 New Airport Maintenance Facility

The development plan calls for a dedicated airport maintenance facility to be developed adjacent to the expanded multi-modal air cargo facility. The need for such a facility is immediate, however the size, shape and adjacency will most likely be dictated by facility planning for the proposed cargo facility. The proposed location of the proposed airport maintenance facility is shown on **Figure 5.2.**

5.6.4.3 New Aircraft Rescue and Fire Fighting/Emergency Operations Center

Current document list MTH as having a "Limited" Aircraft Rescue and Fire Fighting Index. The ARFF facility is currently operated by the Volunteer Fire Department Corporation and serves both the Airport and the City of Marathon. The ARFF building is over 35 years old and in need of replacement.

To accommodate future ARFF requirements, an area has been reserved for future development of an ARFF/Emergency Operations Center facility. Current plans are underway to develop a new facility to the east that would continue to serve the airport and the City of Marathon. The proposed location of the new Aircraft Rescue and Fire Fighting/Emergency Operations Center is shown on **Figure 5.2.**

5.6.5 EXPANDED MULTI-MODAL AIR CARGO FACILITY

A proposed expansion of the existing air cargo complex at MTH was predicated on anticipated future demand for expanded cargo movements in the Middle Keys within the 20-year planning period. The size, layout and overall scheme of such a facility has not been determined as part of this Airport Master Plan Update. A conceptual footprint to accommodate the transfer, handling and temporary storage of goods between surface and air modes of cargo transportation is shown on **Figure 5.2.**

5.6.6 NEW MONROE COUNTY SHERIFF HANGAR, APRON AND FUEL FARM COMPLEX

The new Monroe County Sheriff's complex will comprise a large conventional hangar, attached office space, apron areas and fueling facilities. Development for these facilities is scheduled to occur within the 2002-2003 timeframe. The new Monroe County Sheriff's complex is shown on **Figure 5.3**.

5.6.7 NEW AVIATION MAINTENANCE SPECIALTY HANGAR AND APRON

A concept plan depicting a new specialty maintenance operation and apron is shown on **Figure 5.3**. The development of such facilities is anticipated to occur within the 2003-2004 timeframe.

5.6.8 NEW EAST FBO HANGAR

A concept plan depicting the construction of a new conventional hangar as part of the east FBO lease area is shown on **Figure 5.3**. The development of such facilities is anticipated to occur within the 2003-2004 timeframe.

SECTION 6 0
ENVIRONMENTAL OVERVIEW

SECTION 6.0

ENVIRONMENTAL OVERVIEW

6.1 INTRODUCTION

This section provides a general overview of some environmental conditions that should be considered relative to proposed improvements to MTH. Although a detailed assessment of impacts is beyond the scope of this master plan study, this chapter broadly discusses some of the more important environmental considerations that may have to be further evaluated in order to meet Federal, state and or local requirements prior to detailed design and construction.

6.2 ENVIRONMENTAL EVALUATION REQUIREMENTS

FAA Order 5050.4A titled "Airport Environmental Handbook" provides guidance for the preparation of environmental studies for proposed airport development actions. Order 5050.4A identifies environmental impact categories that should be considered in the environmental process. The handbook lists the following 20 impact categories:

- Noise
- Compatible Land Use
- Social Impacts
- Induced Socioeconomic Impacts
- Air Quality
- Water Quality (and Drainage)
- Section 4(f) of the Department of Transportation Act
- Historic, Architectural, Archaeological, and Cultural Resources
- Biotic Communities
- Endangered and Threatened Species of Flora and Fauna
- Floodplains
- Coastal Zone Management Program
- Coastal Barriers
- Wild and Scenic Rivers

- Prime and Unique Farmland
- Energy Supply and Natural Resources
- Light Emissions
- Solid Waste Impact
- Construction Impacts

It should be emphasized that the information contained in this section is not a formal Environmental Assessment (EA), or Environmental Impact Statement (EIS) as referred to in the National Environmental Policy Act of 1969 (NEPA) or the Airport and Airway Improvement Act of 1982. This overview will, however, point out those areas that may have the potential to be impacted by the proposed airport development at MTH and which may require further environmental study before project implementation.

In addition to the Federal NEPA requirements, the State of Florida requires analysis of possible impacts under Statute 380.06, "Developments of Regional Impact," or DRI. Items considered within the DRI include:

- The extent to which the development would create or alleviate environmental problems such as air or water pollution or noise.
- The amount of pedestrian or vehicular traffic likely to be generated.
- The number of persons likely to be residents, employees, or otherwise present.
- The size of the site to be occupied.
- The likelihood that additional or subsidiary development will be generated.
- The extent to which the development would create an additional demand for, or additional use of, energy, including the energy requirements of subsidiary developments.
- The unique qualities of particular areas of the state.

To assist in the environmental study process, the preliminary evaluations discussed in this section address potential impacts associated with projects proposed at MTH.

6.3 ENVIRONMENTAL PROCESS

Normally, airport improvement projects which are considered to be Federal actions or which receive Federal funding must be examined from an environmental standpoint in order to comply with NEPA, the Airport and Airway Improvement Act of 1982, and other pertinent laws.